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Passed March 19<sup>th</sup>  
1825

An.

Inaugural dissertation

On Calomel

By

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Georgia

Death and  
Grief

Death and  
Grief

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Grief

In the present improved state of Medical Science, the Student unacquainted with the practical part of his profession, (that is without, some experimental knowledge) will often find, himself at a loss, when he is called upon to produce a dissertation, on some one particular medicine or disease; and he will be compelled to resort to the writings or opinion of others to confirm his theoretical observations. I am aware that I have selected as a subject, a medicine upon which much has been said, both in its praise, and with an intention, to prejudice the mind of the profession, and the world at large against it; but having seen some of its beneficial effects in the cure of disease, I can not refrain from speaking in its praise, in the highest terms. It is unnecessary for me at present to enter into an elaborate description of Mercury or



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of its various preparations suffice it to say it  
has been used in some one of its forms, for a  
great length of time I shall only attempt  
to give some account of Calomel, that is  
of its chemical properties, or its component  
parts according to the latest improvement  
in Chemical science, and of its application  
to the cure of some of the diseases to which  
man is liable. According to the new doctrine  
of Dr. Faro Calomel consists of one proportional  
part of Chlorine and one proportional part  
of the metal, and should therefore be denom  
inated, a Chloride or a protoChloride of Mercury  
which is the title most generally given to it.  
But should the present doctrine of Chlorine  
ever be exploded, we shall again be compelled  
to change the term chloride for some other.  
Would it not be preferable in the present  
case to use the term calomel, by which the



article is generally known, until we arrive at a more definite conclusion, as to its composition? As there are several methods of preparing Calomel, from the metal, I shall not undertake to describe them here; but shall proceed to the examination of some of its sensible qualities. When procured pure it exhibits a semi-transparent mass, consisting of short prismatic crystals, terminated by pyramids. Calomel is odorous, insipid, and of an Ivory colour. It becomes darkened by exposure to light, and is nearly insoluble in water. The alkalies and lime water decompose it, and turn it black. Soap and the sulphurets of antimony and plumb, decompose it; also iron <sup>lead</sup> and copper. Hence we discover the impropriety of using metallic mortars, in preparing prescriptions into which this medicine enters. Aspecting the modus operandi of this remedy



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there is and has been for many years considerable disputation when he finds such conflicting opinions, as in the present case. The candid enquirer after truth is often placed in a situation in which he is fearful of moving but by so doing he should fall into error. He reads one author, who declares to him that he has instituted a series of experiments and that the result of those experiments, has forced the conclusion on his mind, that the doctrines of the Humoral Pathology are founded on truth and never can be shaken. Not satisfied here he is still anxious to give the subject a more thorough investigation. He accordingly consults another author, who declares to him that this doctrine is erroneous and that no article whatever is taken into the circulation, un assimilated, or that all articles are changed into the nature of chyle before they can be received into the circulation.

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without producing deleterious consequences or even death. These authors are both men of eminence in their profession and men whose veracity he dare not call in question. The one tells him that calomel operates and produces its specific effects on the system, by being taken into the circulation and carried to the different parts of the body. The other affirms that it produces its primary impression on the stomach, and that this impression is conveyed by sympathy throughout the different parts of the body. He is now left to decide for himself, on this point, from the arguments adduced by the contending parties. Here he is too apt to give way to prejudice or follow the opinions of his instructor.

While all this disputation is carried on respecting the manner in which this remedy produces its effects on living matter, we find it affects not its real practical utility. For it matters not with the pro-



that, physician, whether it is taken into the circulation, or makes its primary impression on the stomach, and by sympathy affects the other parts of the body; It would be seen, its utility to his practice, and its general applicability to the cure of very many diseases, he knows how to appreciate. Since then the truly scientific physician not only wishes to know that certain remedies will produce certain effects when administered under certain circumstances, but he is anxious to know the manner in which these remedies act, in order to produce those effects. The great variety of diseases to the cure of which this remedy has been applied will make it impracticable for me to give a full investigation of the whole; I shall therefore only mention some of those diseases in which it appears to me to act with the most decidedly beneficial effects.



I am convinced that Calomel is a remedy  
which has been as much abused, by impious  
and ignorant pretenders, as any other, but this  
does not detract from its real utility, when in  
the hands of one who knows its effects and its  
application. Take from the physician Calomel  
and you deprive him of one of the strongest  
weapons, with which he is enabled to meet  
and successfully combat disease. Turn it over  
and you enable him to go forth almost unaided  
may even to contend with some of the most  
obstinate forms of disease to which man is liable.  
In fact may I not say that it is the sump-  
tuous of the materia Medica or the Magisteria de  
domini to man when judiciously employed.  
It is a remedy in fevers Calomel has long been  
used, and its beneficial effects are well  
known. Fever is a general disease of the system,  
characterised, by diminution generally but always



by a morbid condition of the action of the organs productive of the secretions, the skin is dry, with partial or entire cessation of its natural function, diminished secretion of thin parched Mucous Deposits, as seen in the condition of the tongue, diminished glandular action exemplified in the absence of Saliva; and no doubt the gastric juice, and mucous secretions of the bowels, are in many cases scanty. In some cases the bile is not produced in usual quantity, more commonly however a green and watery mucus escapes in enormous quantities from the liver, and forms a solitary instance of increased action in the hepatic system. In others we sometimes find derangement in the muscular system, as shown by pains, and neural seisms, or an indisposition to action and otherwise, by the irregular and spasmodic movements of the heart. The nervous system is

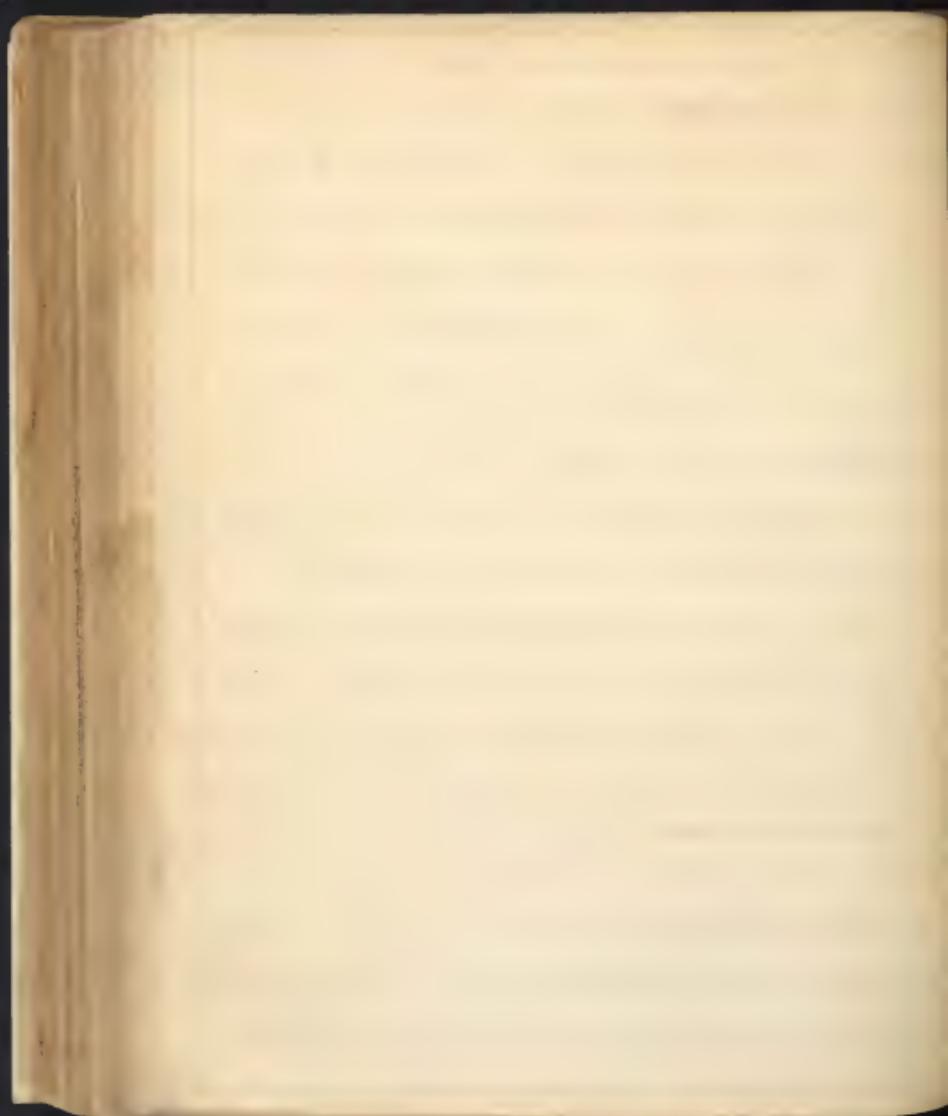


impaired, in energy, or is increased but, very  
rare actions. The sensations are either dull or  
pungently acute; either there is stupor or delirium  
to some extent. There are some of the effects  
of fever on the Human System. If we could  
at once point out the cause of this general  
anarchy, we should not long be at a loss  
for certain antidotes; but after all the disputes  
on the subject may we not say that the Pathology  
of fever is unknown, and we are left to  
pursue the old mode of alleviating symptoms  
or effects. There are increased or lessened secretions  
motor action, in the moving powers of the blood,  
local pain, muscular strangulement, and an  
unnatural dullness, or less ~~sharpness~~, of the  
nervous system. If we can alleviate all these  
effects of symptoms, we may be very certain;  
that we can either remove or render harmless  
the unknown cause of all.



Having these symptoms before us, we are to use such remedies, as are best calculated, to restore their healthy action to the various organs of the system. We will now enquire, what are the effects of calomel on the system. The pure salt, when exhibited in doses of 10 or 15 grains, operates as a cathartic, and sometimes as an emetic. When given in large or cathartic doses, it irritates the stomach, and its good effects are confined to the intestines, and liver.

But when given in small, and frequently repeated doses, it acts on every organ, and if carried to sufficient strength, to produce slight phlogiston, it ins many cases, undermines the often hidden course of disease, and establishes its own peculiar action on the system, which gradually subsiding leaves the body in a comparatively healthy state. From what has been said of the effects of calomel, on the system, and the symptoms

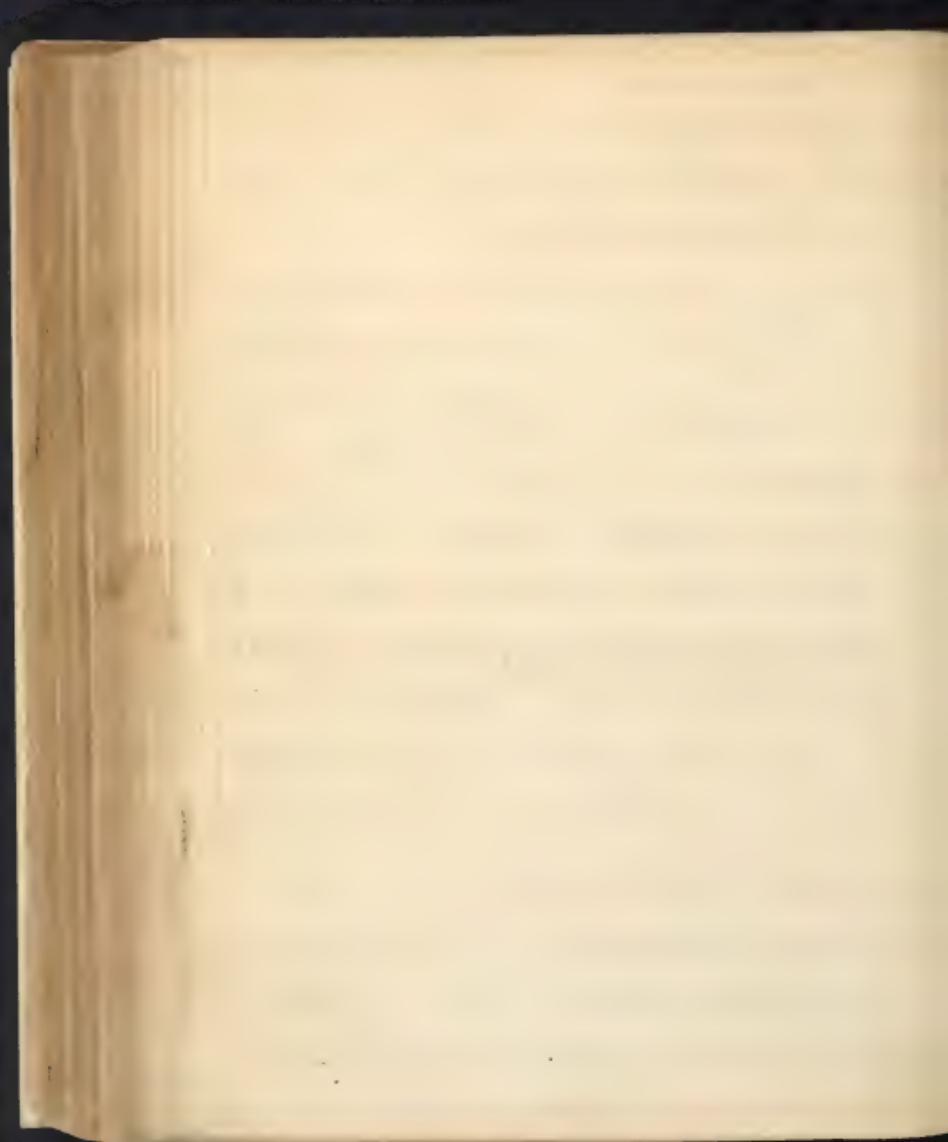


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of fever 't will at once be seen that it is  
one of the most powerful remedies in the  
cure of this class of disease.

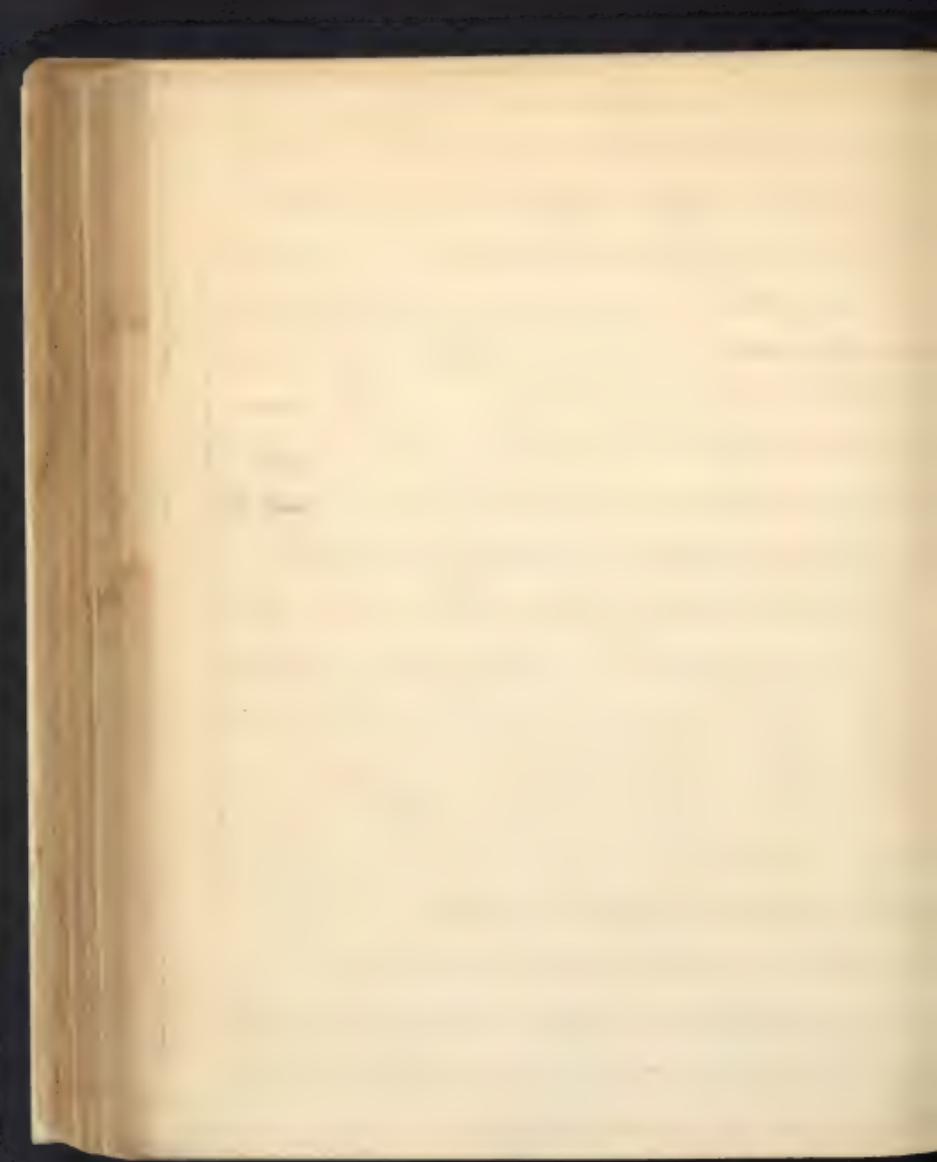
It may be combined with various other rem-  
edies, as with Salap to increase its cathartic  
property, with opium to allay irritation, and  
with small portions of Tart. antimony with  
a view of determining to the surface and  
producing an astringent action in the capilla-  
ry. In all fevers there is a diseased action in this  
set of vessels, and from the pervading qualities  
of calomel, <sup>and the power which it possesses</sup> when combined with curacao, den-  
phosher, of acting on the same we may safely  
recommend it as a valuable remedy in febrile  
diseases.

In the works of Dr. Wm. Story on Typhus  
fever we find the following remark: "Calomel  
has a more general influence than any other  
ather, by which it weakens a degree of nervousness in the



stomach, emulges the biliary duct, dislodges  
syphala most effectually, corrupt morbid se-  
cretions, and with small doses of antimonial  
powder or of the Sarsaparilla of antimony, pro-  
motes perspiration as well as purges." Those who have  
read the writings of Tolman on the means  
of topical remedies will know how to appreciate  
the value of Calomel in the treatment of that  
form of fever which prevails <sup>in</sup> hot climates.

In intermissions, after the subsidence of an eruption  
we find no remedy, which acts so well in clean-  
ing the alimentary canal of that load of un-  
healthy secretions with which, it is always more  
or less burthened and as the thyroepitrophic viscera  
are more or less deranged, in this disease, it becomes  
a matter of great importance that a healthy  
state of these viscera, should be brought about  
by some means, and if we search the Materia  
Medica through, we shall discern no remedy



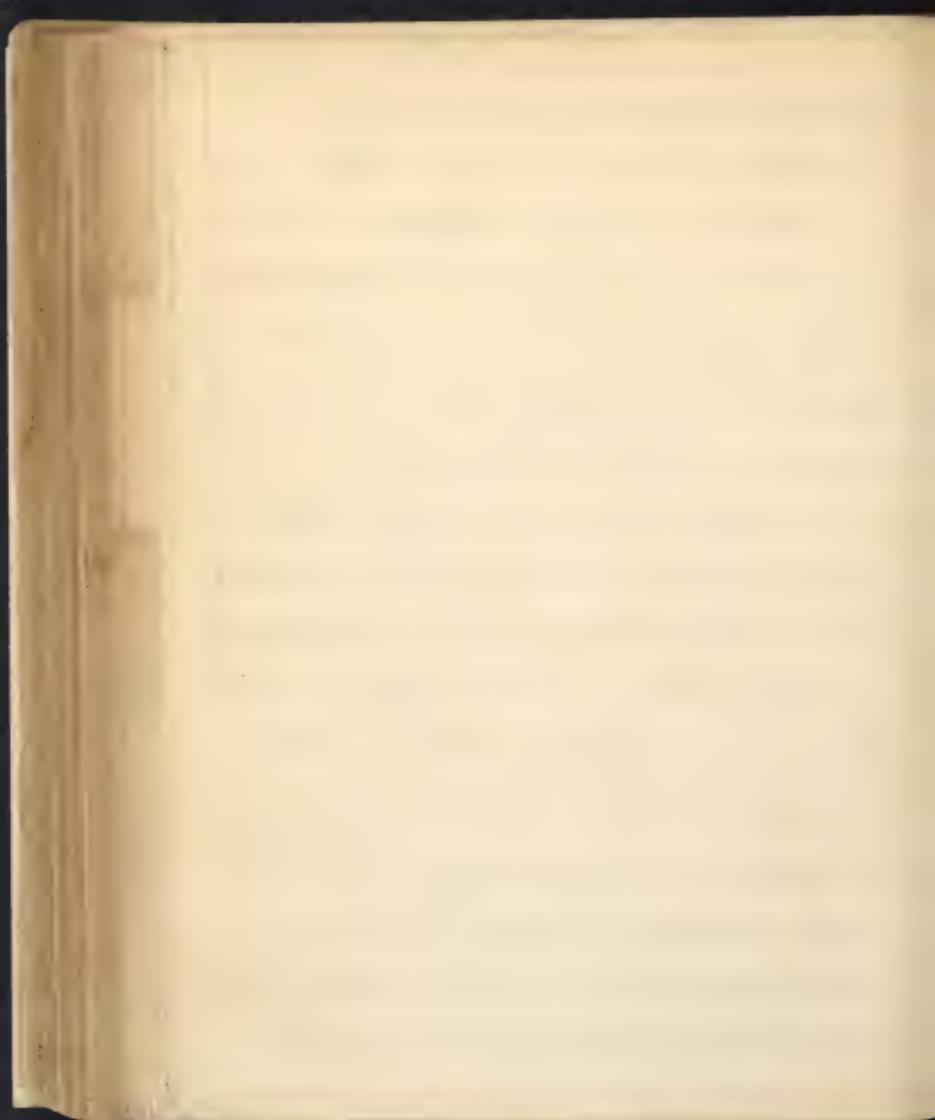
so well calculated to accomplish our object  
as Calomel.

It is a fact, (I believe admitted by all) that  
we are acquainted with no remedy which acts  
with more certainty, or energy on the liver or indeed  
on the whole system. Professor Chapman when  
when speaking of mercury says, "Unquestionably there  
is no article of the materia medica, so diffuse  
as in its effects, which pervading the whole  
system, enters into every part, and acting on  
every part, leaves no member unimpaired untouched.  
It prepares the system for the exhibition of the  
bark, which coming in after the bowels have  
been thoroughly evacuated by calomel acts  
with the best effects.

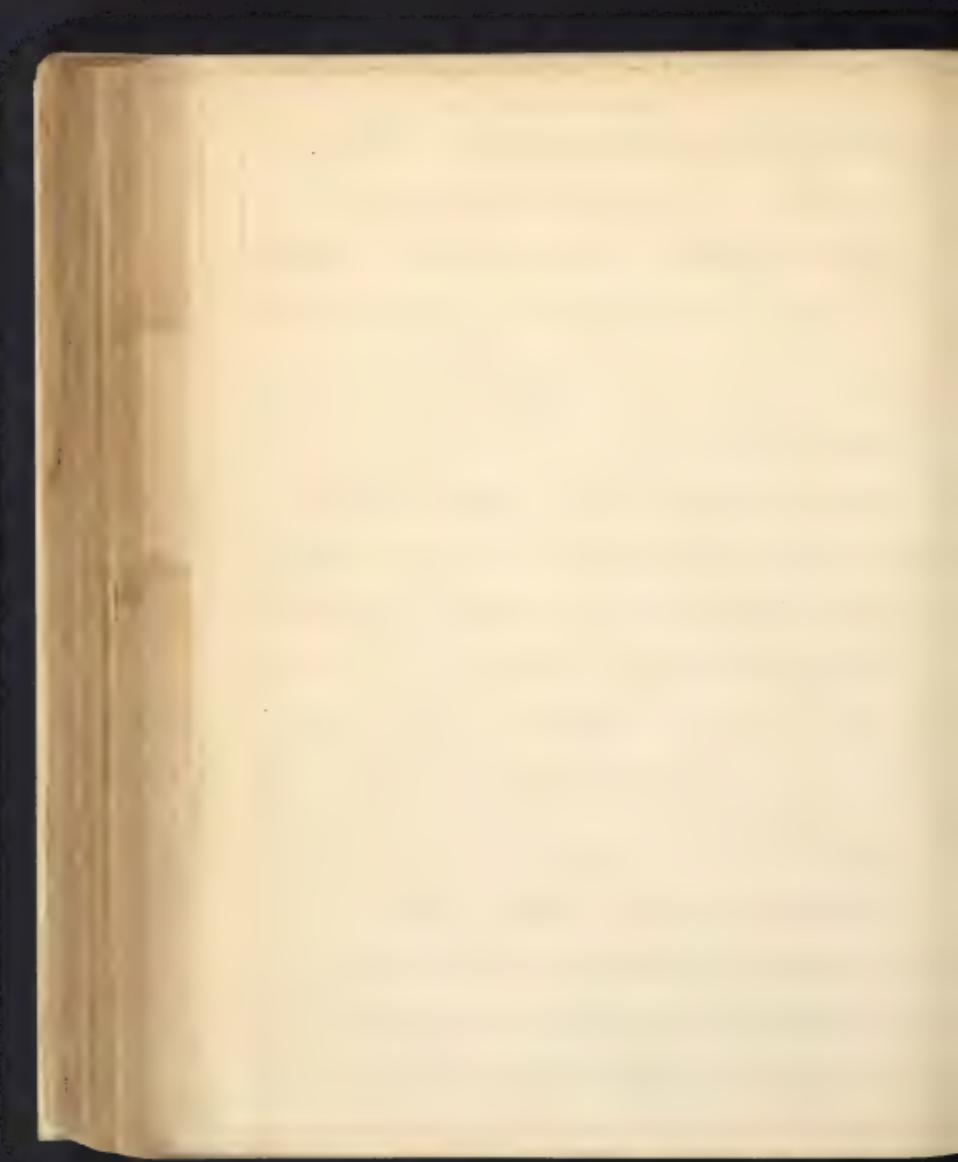
There is a form of this disease which has pre-  
sailed for some years in the Southern States,  
which calls for more energetic means than are  
employed in ordinary cases. The patient is



uddenly attacked with the disease, and three or four paroxysms put an end to his existence, until the most vigorous means be employed to remove it. The disease comes on with shivering and tremors excited, by a slight chill, which lasts only a few minutes, when the most painful exertion takes place and in half an hour, the patient is laboring under the most violent degree of asthmatism, respiration laboured, skin hot and dry, tongue parched, neck swelled, great thirst and slight determination to the head. The pulse in this disease is regular but somewhat retarded. This stage lasts, probably six or eight hours, after which the sweating stage comes on, and the patient is relieved of all those distressing symptoms, but still complains of dull, languid sensations, with a sense of heaving in the right Hypochondriac region. On the succeeding day the chills again return accompanied with



an augmentation of all the above mentioned symptoms. This it continues increasing in violence until the system can no longer withstand the ravages of the disease, and the patient sinks under the load of oppression. I have no specific for the cure of this form of intermit-  
tence, but in the course of the most violent attacks during the Pyrexia, and after the bowels have been evacuated the bark has been used during the course, but with the most effect removed with the bark multiplying the disease.  
In form of violent suspensions, with a violent Pyrexia, expectoration of mucus, violent oppression, and least by the removal of the bark to give way to violent Sputa. Followed by a Saline cathartics, if it should be found necessary, and this plan of treatment is to be pursued as until the violent course of a violent appearance, when an



say resort to the use of the bark in combination  
with the gentian with safety and good effect  
as this is in my opinion there is a want of the nit  
rate function of the liver and without a de  
monstrating there is a deficiency of bile you may  
try your patient with the ordinary cathartics  
salap. Now comes in the natural salts and you  
bring from time nothing but the violent motion  
of the temples in this state of things a moderate  
dose of calomel say 40 grains for a small  
size person at this time being of little service, and you  
will see the course of the liver which appears to  
have been deranged under the operation of  
any the cathartics and you have a copious  
discharge of bile this however is not natural  
for from the mind it has the appearance and  
consistence of tar. I am aware that it is affected  
by some that this appearance of the discharge is  
dependent on the disease, or loss of the calomel



while passing through the bowels, but this does not appear to me to be the most reasonable conclusion, for I have seen the mercurial purges continued for several days when the evacuations would entirely change in their appearance, and become healthy. Moreover, is it rational to suppose that the small quantity of calomel administered at a dose, would be sufficient to give this dark appearance to the immense quantity of matter, which we find in many of these cases? Would it not be more consistent with reason and the economy of living matter to suppose that this dark colour of the evacuations depended on a diseased action, in the Chyle & Sanguiniferous vessels? May we not say, that this diseased action is again dependent on a determination of blood to these vessels, especially to the Liver & Colon, when administered, the action of which produces a marcable impression on this organ, stimulates it and causes it to throw out, this peculiarly



pitch and unnatural secretion, its natural function being suspended by the disease present. I will admit that you may purge a man in apparent good health with calomel, until you produce this black discharge; but I contend that by the action of your medicine you first produce a derangement of the natural function of the liver. And is not this too often done by calomel?

*September*

*John D. Jackson*

